Annals of Gastroenterology (2015) **28,** 294-298

Does *Helicobacter pylori* eradication or proton pump inhibitor use benefit gastroesophageal reflux disease?

Yusuf Serdar Sakin[a], Murat Kekilli[b], Ahmet Uygun[a], Sait Bagci[a]

Gulhane School of Medicine; Ankara Training and Research Hospital, Ankara, Turkey

We read with great interest the recently published article by Moschos *et al* [1]. They aimed to show the beneficial effect of *Helicobacter pylori (Hp)* eradication in gastroesophageal reflux disease (GERD) patients. They indicated in this study that *Hp* eradication may positively influence GERD symptoms. We commend Moschos *et al* for this study, but we think there are some controversial situations that need to be clarified.

They indicated that they found improvement in manometric pattern at 17% of patients and acid reduction in 3-h pH results at 82.8% of patients. But there are controversies of this procedure. Firstly, weak acid and non-acid reflux were not mentioned in this study. Ambulatory pH monitoring shows only acid reflux, and multichannel intraluminal 24-h pH-impedance (MII-pH) monitoring is needed to determine weak and non-acid reflux [2]. Thus, we think that to determine the exact beneficial results of *Hp* eradication, MII-pH monitoring may be done. Secondly, it has been shown that the intragastric and esophageal pH levels are affected postprandial according to the meal composition and mealtime. High-fat meals have been shown to elicit heartburn and increased acid exposure [3]; however, in this study, the patients' meal composition and type were not mentioned.

And thirdly, it is controversial whether the beneficial effect stems from proton pump inhibitor (PPI) use or from *Hp* eradication treatment. It is shown that PPI therapy aims to reduce the acidity of reflux episodes and conversely increases the exposure of the esophagus to non-acid and weakly acidic reflux [4]. Consistent with this study, Rinsma *et al* [5] showed improvement in distal baseline impedance and decrease in acid reflux in MII-pH monitoring, but they found an increase in non-acid reflux episodes in patients receiving PPIs after 6 months of therapy. In this study, the patients had taken rabeprazole for 10 days to eradicate *Hp*, followed by high-dose PPIs (4 times a day) for 30 days. Although there seems to be a 6-week without treatment period, it is a high acid suppressive dose that may affect acid secretion. Thus, we think that the beneficial effect observed during pH monitoring may be due to the long-term effect of PPI treatment. Based on the abovementioned data, we suggest that these controversies must be taken into account in future studies.

References

1. Moschos JM, Kouklakis G, Vradelis S, et al. Patients with established gastro-esophageal reflux disease might benefit from *Helicobacter pylori* eradication. *Ann Gastroenterol* 2014;**27**:352-356.
2. Vakil N, van Zanten SV, Kahrilas P, et al. The Montreal definition and classification of gastro esophageal reflux disease: a global evidence-based consensus. *Am J Gastroenterol* 2006;**101**:1900-1920.
3. Simonian HP, Vo L, Doma S, Fisher RS, Parkman HP. Regional postprandial differences in pH within the stomach and gastro esophageal junction. *Dig Dis Sci* 2005;**50**:2276-2285.
4. Hemmink GJ, Bredenoord AJ, Weusten BL, Monkelbaan JF, Timmer R, Smout AJ. Esophageal pH-impedance monitoring in patients with therapy resistant reflux symptoms: 'on' or 'off' proton pump inhibitor? *Am J Gastroenterol* 2008;**103**:2446-2453.
5. Rinsma NF, Farré R, Bouvy ND, Masclee AA, Conchillo JM. The effect of endoscopic fundoplication and proton pump inhibitors on baseline impedance and heartburn severity in GERD patients. *Neurogastroenterol Motil* 2014; doi: 10.1111/nmo.12468.

Departments of Gastroenterology, [a]Gulhane School of Medicine (Yusuf Serdar Sakin, Ahmet Uyfun, Sait Bagci); [b]Ankara Training and Research Hospital (Murat Kekilli), Ankara, Turkey

Conflict of Interest: None

Correspondence to: Yusuf Serdar Sakin MD, Department of Gastroenterology, GATA School of Medicine, Gn. Tevfik Saglam Cd. 06010 Ankara, Turkey, e-mail: serdarsakin78@gmail.com

Received 8 December 2014; accepted 16 December 2014